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TI - Button-type air cell - in which air supply hole is sealed with polypropylene, polyester sheet and inorganic cpd. NoAbstract Dwg 1/2

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PN - JP58161246 A 19830924 [JP58161246]

TI - (A) BUTTON TYPE AIR BATTERY

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PR - JP4491582 19820319 [1982JP-0044915]

IC - (A) H01M-002/16

EC - H01M-012/06

DT - Basic

STG - (A) Doc. Laid open to publ. Inspec.

AB - PURPOSE: To seal a button type air battery with excellent long-term preservation by sealing an air supply hole using a sealing material that is mainly composed of the composite sheet consisting of a polyester sheet and a polypropylene sheet filled with an inorganic compound.

- CONSTITUTION: A button type air battery is mainly composed of an air electrode (positive electrode) that primarily comprises a positive electrode catalyst layer 5 which uses oxygen in the air as the active material, an impregnant 7 of an electrolyte composed of an alkaline aqueous solution, and a zinc negative electrode 10. Besides, a positive electrode case 1 is provided with an air hole 2 and the hole 2 is sealed by sealing paper 11. The sealing paper 11 permits a polypropylene sheet 11-2 filled with an inorganic compound and a polyester sheet 11-3 to be laminated by an adhesive layer 11-1. The inorganic compound applied to the sheet 11-2 is selected from inorganic pigment, silica, alumina, and a group of silicic acids. As a result, the long-term sealing of the button type air battery can be performed by externally diffusing only a small amount of hydrogen generated from the inside of the battery slowly from the polypropylene layer filled with the inorganic compound.

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ENGLISH DIGEST

Japanese Unexamined Patent Application: 58-161246, September 24, 1983

Title: Button Type Air Cell

Application: March 19, 1982

Sr: 57-44915

Inventors: N. Koshiba et al

Applicant: Matsushita Electric Industrial Co.

It relates to a sealing material for use with air electrode.

A button type air cell such as shown in Fig. 1 has air holes (2), which are sealed when not in use with a covering material such as polyester, polypropylene sheet or polyester laminated with paper. Polyester is commonly used because of its low gas permeability. However, during long-time storage, hydrogen builds up, which sometimes damages the sealing material. Therefore, a material which gradually breathes out hydrogen is needed.

In this invention, polyester sheet (11-3) is laminated with polypropylene sheet (11-2) contg inorganic powder such as silica is used. The inorganic powder allows to breath while giving mechanical durability.

Example: Polyester sheet 25 μ m, and polypropylene sheet contg silica 100 μ m are laminated to make a covering material.

Claim: Button type air cell, in which air holes are sealed with a composite sheet made of polyester sheet and polypropylene sheet contg inorganic compound. In said cell, inorganic compounds include inorganic pigment, silica, alumina and silicate.

FIG 1

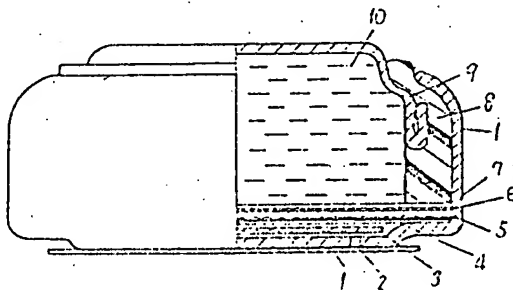
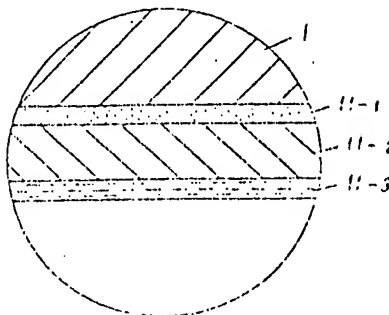


FIG 2



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